

Space News Roundup

Headquarters establishes Station Office

NASA has established an Office of Space Station to direct the agency's efforts to carry out the direction of President Reagan to develop a permanently manned space station and to do it within a decade.

Heading the new program office at NASA Headquarters will be Philip E. Culbertson, who has been appointed Associate Administrator for Space Station. The Deputy Associate Administrator for Space Station will be John D. Hodge.

The new program office will provide overall policy and program direction for the Space Station program. The Space Station Program Office at JSC will report to the new program office. Space Station project offices at other NASA centers also will be responsible to the Office of Space Station through the Johnson program office. The Johnson Space Center was named lead center for the Space Station in February.

Culbertson had been Associate Deputy Administrator of NASA since November 1981. For the past few months he also served as acting Director of the Interim Space Station Program Office. He joined NASA in 1967 as Director of Skylab Program Integration and has held management positions in Advanced Programs, Planning and Program Integration and in the Office of Space Transportation System before becoming Associate Deputy Administrator.

He was born in Colfax, Washington, received a bachelor's degree in aeronautical engineering at Georgia Tech and a master's degree from the University of Michigan. He served four years in the Navy as a missile guidance officer. He also worked in engineering at General Dynamics Corp., Convair Div., San Diego, and Bendix Corp., System Div., Ann Arbor, Mich. He and Mrs. Culbertson, the former Shirley Coskey, live in McLean, Virginia.

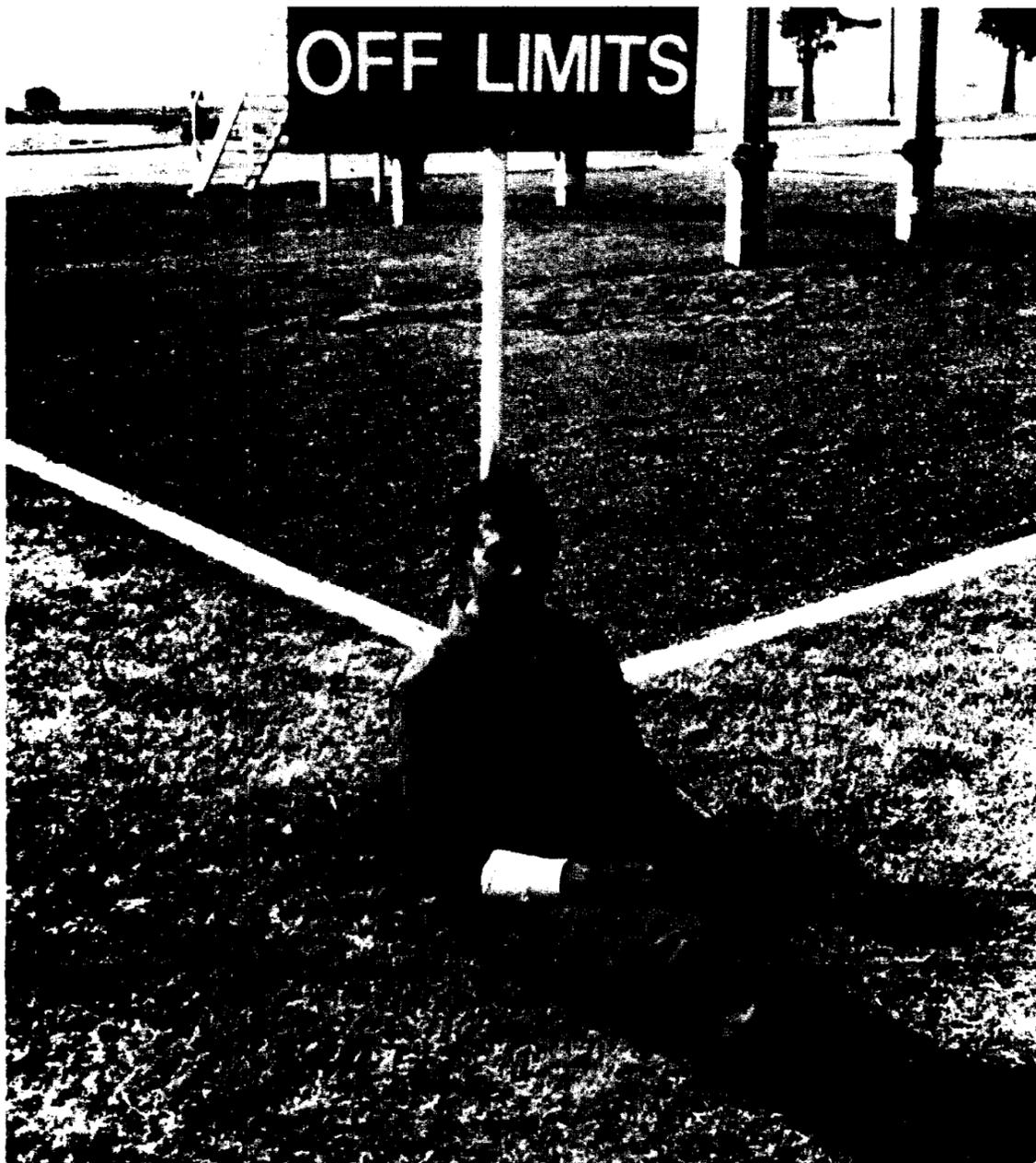
Hodge returned to NASA in May 1982 as Director of the Space Station Task Force and since April he has been acting Deputy Director of the Interim Space Station Program Office.

He previously served at NASA from 1959 to 1970 at Langley Research Center, Hampton, Virginia, with the Space Task Group as Assistant Chief for Flight Control, and then at the Manned Spacecraft Center (now the Johnson Space Center), Houston, as Chief, Flight Control Division and Manager, Advanced Missions Programs.

Since 1970, Hodge has been associated primarily with the Department of Transportation, with his most recent position Associate Administrator for Policy, Plans and Program Management, Research and Special Programs Administration, from 1977 until he rejoined NASA.

Hodge was born in Essex, England. He received his bachelor's degree with First Class Honors in 1949 at the University of London, England. He received the honorary degree of Doctor of Science at City University, London, in 1966.

Hodge and his wife, the former Audrey Cox, live in Great Falls, Virginia.



Astronaut Candidate Manley Carter, Jr. relaxes on the correct side of a sign during a break in parachute training at Vance AFB in Enid, Oklahoma last week. The candidates had just finished jumping off the platform in the background when this shot was taken.

LTV, TRW and Martin chosen for OMV study

An Orbital Maneuvering Vehicle (OMV), which could extend the reach of the Space Transportation System to about 23,000 miles above the Earth, came a step closer to reality last week when three aerospace companies were awarded contracts for studies.

LTV Aerospace and Defense Co. of Dallas, Martin Marietta Aerospace of Denver, and TRW Inc. of Redondo Beach, Calif., were selected for negotiations leading to system definition studies.

The contracts, to be negotiated and managed by the Marshall Space Flight Center, will be on a fixed-price basis, 12 months long, with the combined dollar value of the three contracts set at \$5 million.

NASA sees OMVs as the third essential leg of a complete Space Transportation System. The Space Shuttle and Space Station are the other two elements in the space triad. Upon approval to proceed with construction of the OMV, proposed for a first launch about 1990, NASA anticipates that one of the companies involved in these definition studies would be chosen to build the flight hardware.

The vehicle would supplement the present Space Transportation System by extending man's reach to and from high Earth orbits. The OMV would have the ability to retrieve satellites from high orbits and bring them back to the Shuttle or Space Station for repair. The OMV would then place the repaired satellites back into their operational orbits. The OMV could also serve as a means of reboosting satellites

(Continued on page 2)

NASA updates crew assignments

NASA last week released an updated list of flight crew mission assignments, reflecting the manifest changes in the Space Shuttle schedule which have come about since the launch abort of Mission 41-D in late June. Following that abort, Mission 41-F was cancelled, and several payloads from that flight, including two communications satellites, were factored into the 41-D payload complement.

In the following list coupling crews with missions, each flight is further identified by a projected launch date, an Orbiter number (*Challenger*: OV099, *Columbia*: OV102, *Discovery*: OV103, and *Atlantis*: OV104), and a major payload or mission objective.

STS 41-D

Late August, 1984
OV103: OAST ops/ComSat deploys
Henry Hartsfield, CDR
Michael Coats, PLT
Richard Mullane, MS
Steven Hawley, MS
Judith Resnik, MS
Charles Walker, PS

STS 41-G

Oct. 1, 1984
OV099: OSTA-3/ERBS
Robert Crippen, CDR
Jon McBride, PLT
Kathryn Sullivan, MS
Sally Ride, MS
David Leestma, MS
Marc Garneau, PS
Paul Scully-Power, PS

STS 51-A

Nov. 2, 1984
OV103: ComSat deploys/
Possible retrievals
Rick Hauck, CDR
David Walker, PLT
Anna Fisher, MS
Dale Gardner, MS
Joe Allen, MS

STS 51-B

Jan. 17, 1985
OV103: Spacelab 3
Robert Overmyer, CDR
Fredrick Gregory, PLT
Don Lind, MS
Norman Thagard, MS
William Thornton, MS
Lodweijk van den Berg, PS
Taylor Wang, PS

STS 51-E

Feb. 12, 1985
OV099: TDRS-B deploy
Karol Bobko, CDR
Donald Williams, PLT
Rhea Seddon, MS
Jeffrey Hoffman, MS
David Griggs, MS
French Payload Specialist

STS 51-D

March 18, 1985
OV103: LDEF retrieval
Dan Brandenstein, CDR
John Creighton, PLT
Shannon Lucid, MS
John Fabian, MS
Steve Nagel, MS
Hughes Payload Specialist

STS 51-F

April 17, 1985
OV099: Spacelab 2
Gordon Fullerton, CDR
David Griggs, PLT
Story Musgrave, MS
Tony England, MS
Karl Henize, MS
Loren Acton, PS
John-David Bartoe, PS

STS 51-G

May 30, 1985
OV102: ComSat deploys
Joe Engle, CDR
Richard Covey, PLT
James van Hoften, MS
John Lounge, MS
William Fisher, MS

STS 51-L

July 2, 1985
OV099: TDRS-C deploy
Brewster Shaw, CDR
Bryan O'Connor, PLT
Mary Cleave, MS
Sherwood Spring, MS
Jerry Ross, MS

STS 61-A

Oct. 14, 1985
OV102: Spacelab D-1
Henry Hartsfield, CDR
Steve Nagel, PLT
James F. Buchli, MS
Guy Bluford, MS
Bonnie Dunbar, MS
Reinhard Furrer, PS
Ernst Messerschmid, PS
Wubbo Ockels, PS

STS 51-H

Nov. 27, 1985
OV104: EOM-1
Vance Brand, CDR
Michael Smith, PLT
Robert Springer, MS
Owen Garriott, MS
Claude Nicollier, MS
Michael Lampton, PS
Byron Lichtenberg, PS

STS 61-D

Jan. 28, 1986
OV102: Spacelab 4
(CDR, PLT, PSs to be announced)
John Fabian, MS
James Bagian, MS
Rhea Seddon, MS

STS 61-E

March 6, 1986
OV102: ASTRO-1
(CDR and PLT to be announced)
Robert Parker, MS
David Leestma, MS
Jeffrey Hoffman, MS

Space News Briefs

Moore named AA for Space Flight

Jesse W. Moore has been appointed Associate Administrator for Space Flight, effective immediately. He has been serving as the Acting Associate Administrator since the departure of Lt. Gen. James A. Abrahamson last spring. He was appointed Deputy Associate Administrator for Space Flight in February 1983. Moore came to NASA Headquarters in 1978 as Deputy Director of the Solar Terrestrial Division in the Office of Space Science. Prior to that, he worked as the Jet Propulsion Laboratory and worked in a variety of areas including guidance and control, advanced programs and flight projects. His last assignment at JPL was as Science and Mission Design Manager for Project Galileo.

Ford, Lockheed to study GEO platforms

Two aerospace companies have been asked by the Marshall Space Flight Center to envision Geostationary Earth Orbit (GEO) platforms of the 1990s. Ford Aerospace of Palo Alto, Calif., and Lockheed Missiles and Space Co. of Sunnyvale, Calif., were each awarded \$550,000 contracts for conceptual studies to run 21 months. Ford and Lockheed have been asked to study, in particular, the concept of aggregating services aboard one platform. At present, services such as communications, Earth resources observations and weather observations are performed by different satellites. "Aggregation would allow economy of scale," said Bob Durrett, Marshall study manager, "by using common utilities, attitude control and so forth. It may be cheaper to build and operate on a big platform than a lot of small, separate satellites."

Court approves DBS licensing

The direct broadcast satellite concept, known as DBS, cleared a major legal hurdle July 24 when the U.S. Circuit Court of Appeals for the District of Columbia upheld licensing of the experimental broadcast system. The system would send television signals directly from high-powered satellites to small home receiving dishes by the late 1980s. At least one DBS service, that planned by Satellite Television Corp., is planned to begin with the launch of two satellites on the Space Shuttle in 1986. The court ruling upheld an earlier Federal Communications Commission decision to grant licenses to firms interested in marketing the DBS technology. The FCC ruling had been challenged by a group of broadcasters, several cities and the County of Los Angeles, who said more tests of the system should be done before licenses are granted.

Mattingly to leave Astronaut Corps

Veteran astronaut Thomas K. Mattingly, a Navy captain, will leave NASA early in 1985 to become Director of the Space Program for the Naval Electronic Systems Command. He is scheduled to command Mission 51-C in December on a flight for the Department of Defense. Mattingly, an astronaut since 1966, was command module pilot on Apollo 16 and Commander for STS-4. He served on the astronaut support crews for the Apollo 8 and Apollo 11 missions. He will be stationed in Arlington, Virginia.

Giotto launch contract signed

The European Space Agency signed a contract with Arianespace July 12 for launch of the Giotto probe to Halley's Comet next year. Giotto will be launched aboard an Ariane 1 in July 1985 into a heliocentric transfer trajectory which will be close to the ecliptic plane. During its eight month cruise, it will be controlled from the European Space Operations Centre in Darmstadt, West Germany. Onboard propulsion will be used to steer Giotto towards the closest possible approach to the nucleus of the comet on March 13, 1986. The encounter will last for four hours. Ten scientific experiments aboard Giotto will observe the nucleus, and ESA hopes to obtain color photographs of the nucleus with a resolution of 50 meters. The Soviet Union's Vega 1 and 2, to be launched in December of this year, will encounter the comet on March 6 and 9, 1986. The Japanese MS-T5 and Planet-A probes, to be launched in January and August, 1985, respectively, will encounter the comet on March 8, 1986. Meanwhile, NASA's International Cometary Explorer will be in the vicinity, while the ASTRO payload aboard the Shuttle will be observing from low Earth orbit.

Hubble primary mirror cleaned

After almost three years of assembly operations, even in a clean room at Perkin-Elmer Corp., it was time to dust off the primary mirror of the Hubble Space Telescope. The mirror will be inaccessible after it is incorporated into the Optical Telescope Assembly in the next few weeks. Since the mirror was coated in December 1981, a very fine deposit of dust particles had accumulated. A system employing jets of dry nitrogen in conjunction with a special vacuum cleaner was used to clean the mirror in a 16-hour procedure.

Bulletin Board

Summer employee banquet set

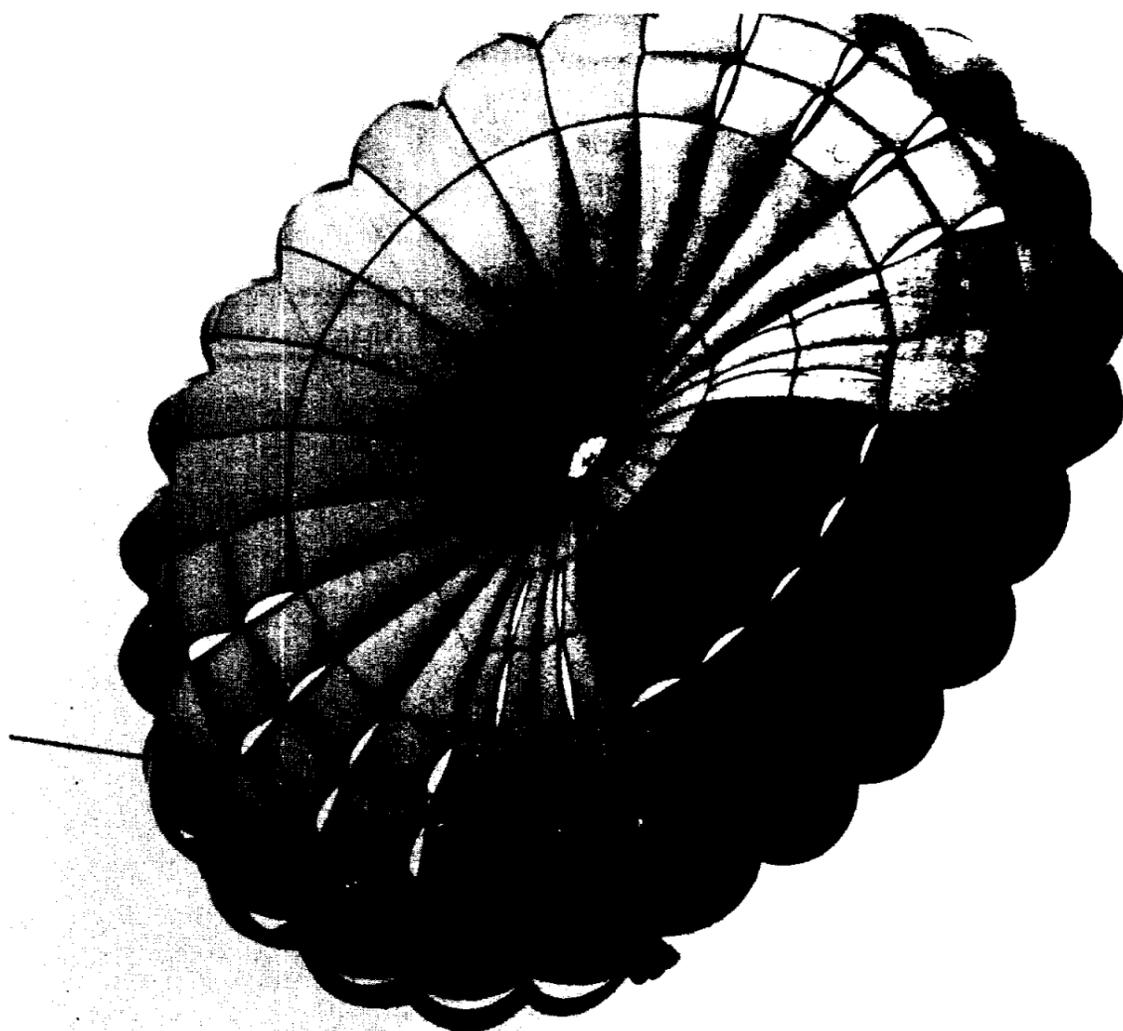
A banquet honoring this year's summer employees will be held beginning at 11:30 a.m. Friday, Aug. 10 at the Gilruth Recreation Center. Gene Burrough, General Manager of the Houston Gamblers, will be the guest speaker. All summer aids, OE students, supervisors, parents and friends are invited to attend. The price of the luncheon is \$6.45. For more information, call Freda Lowe at x5266.

Duck stamp art on exhibit

A unique traveling exhibit of duck stamp art, celebrating the 50th anniversary of the U.S. Government's most successful revenue stamp, will be on display at the Armand Bayou Nature Center until Sept. 2. Best known to the hunters who are required by law to buy the stamps each year, the Federal Duck Stamp program has generated \$285 million in funds to preserve some 3.5 million acres of waterfowl wetland habitats since 1934. Proceeds from the sale of the stamps are used by the Department of the Interior's U.S. Fish and Wildlife Service to buy wetlands for the National Wildlife Refuge System. Armand Bayou is the only wildlife preserve in the country to host the exhibit during its U.S. tour this year. The Nature Center is located at 8600 Bay Area Blvd., about two miles east of JSC's Space Center Blvd. gate and just west of Red Bluff Road. The exhibit is open from 9 a.m. to 5 p.m. and admission is free.

Osborne group to meet

The Clear Lake Osborne and CP/M group will hold its next meeting beginning at 9 a.m. Aug. 11 at the Gilruth Recreation Center. The group offers presentations, question and answer periods and educational exchanges. For more information on the meeting or the group, call Maynard Huntley at x6441 or write P.O. Box 57613, Webster, TX 77598.



Astronaut candidate Kathryn Thornton is seen here during parachute training at Vance AFB in Oklahoma last week.

NOAA-8 begins tumbling

NOAA-8, the environmental monitoring satellite which carries the U.S. SARSAT system, appears to have lost attitude control and is tumbling in orbit, according to NASA and the National Oceanic and Atmospheric Administration (NOAA).

The satellite is now unable to relay signals to Earth, officials said. Launched aboard an Atlas E rocket last year, the 3,775-pound satellite has six environmental monitoring instruments aboard and a search and rescue payload provided by Canada and France under an international cooperative space project with NASA known as SARSAT.

Some 223 lives have been saved with the SARSAT system since September 1982 (see related story).

NOAA officials said many of the environmental monitoring capabilities of NOAA-8 can be replaced by NOAA-6, which was launched in June 1979. NOAA-8, the first in a series of three Advanced TIROS-N (ATN) spacecraft, first began showing signs of a problem June 12, according to the Goddard Space Flight Center.

At that time, the spacecraft experienced a "clock interrupt" that caused the onboard gyros to desynchronize. Continued clock disturbances interfered with the meteorological instruments, pre-

venting scientists from obtaining good data. Over the weekend of June 30 to July 1, the spacecraft began tumbling.

Nitrogen that normally would be available to correct the attitude problem was used shortly after launch in March 1983. After the satellite was launched from the Western Test Range March 28 of last year, it began tumbling when it reached an altitude of 470 nautical miles. On April 12, 1983, engineers corrected the problem.

Although the U.S. currently has no satellites in orbit with search and rescue capability, the next one, NOAA-F, is planned for launch October 23 of this year.

SARSAT saves 223 lives

Eight more lives have been saved by an international satellite-aided search and rescue program, officials at the Goddard Space Flight Center report.

The eight rescues bring to 223 the number of lives that have been saved since the program began in September 1982, according to Fred Flatow, mission manager at Goddard. All eight were maritime rescues.

Two of the incidents — the rescue of six fishermen in the Mediterranean Sea and the rescue of one sailor off the coast of California — occurred in February and March respectively.

The third incident took place in the Atlantic Ocean off the Azores on May 19, Flatow reported. In that case, one sailor was rescued when a 19-foot Canadian yacht became disabled.

In all three cases, distress signals were heard by both U.S. and Soviet satellites. They were re-

ported. The 25-foot sailing ship, "Arctic Wind," encountered difficulties 60 miles southwest of Monterey. The lone person on board had no voice communications and no survival equipment, according to Coast Guard sources, but signals from its Emergency Position-Indicating Radio Beacon (EPIRB) were picked up by the satellites. The signals were verified by overflying airliners, after which the Coast Guard Cutter Cape Hedge intercepted the vessel and towed it to San Luis Obispo.

To date, the satellite program, in which Canada, France, the United Kingdom, Norway, Sweden, Finland and Bulgaria also participate, has saved 115 persons in maritime and 107 in air emergencies. It also is responsible for saving the life of one person "on foot." That was a woman dog sled musher in Alaska who became ill on a dog sled trek from Kotzebue to Point Barrow in April.

The incident off the California coast took place March 30, Flatow

OMV study

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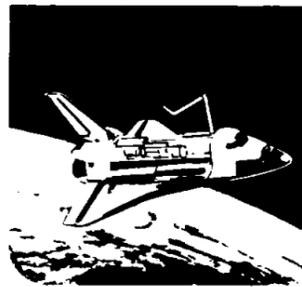
as their orbits gradually decayed, avoiding costly dedicated Shuttle missions.

As presently envisioned, the OMV would be a remotely-piloted unmanned spacecraft approximately 15 feet in diameter and 3 feet in length. The life of the vehicle would be ten years with refurbishment at the Space Station. On-orbit maintenance capabilities would be included in the design.

The OMV initially would be deployed from the Shuttle for short duration missions.

NASA
Lyndon B. Johnson Space Center

Space News Roundup



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Editor

Brian Welch

Ellington

New directions for 'the peer of flying fields'



Ellington Field in 1918. The view is to the south.

The signs on the Gulf Freeway say "Ellington Field" now, just as they once did on a less traveled road almost 70 years ago. Ellington Air Force Base is a thing of the past, and commercial and general aviation operations administered by the City of Houston are a thing of the future.

But even with name and ownership changes, Ellington Field still has the look of having seen better days, and it has. The grass grows a bit higher than it should. Dilapidated buildings — a hundred or more built as temporary structures in 1940 — sit with walls sagging, doorsteps and window frames in decay, paint peeling. A tour of Ellington today makes it hard to believe that the Army Air Corps spent over \$7 million at the outbreak of World War II on construction to house and train hundreds of flying cadets. The buildings are the same, but 44 years older.

Picturing Ellington as it was in 1918 is even harder. "The peer of flying fields" is what the 1918 Ellington Field yearbook called it. Today, only the runways, hangars and a few other structures necessary for current operations by NASA, the Texas Air National Guard and the Coast Guard are kept in working order.

But change has been the rule at Ellington, and the air base is again in line for a renaissance of sorts.

The City of Houston became the new owner on July 1, having recently acquired nearly 1,700 acres for general aviation operations. In addition, NASA is ready to start a thorough upgrading of

JSC facilities there, first installed 22 years ago this summer (see related story).

The City received 1,567 acres at Ellington from the Federal Government and purchased another 91 acres with runway and railroad access. Although July 1 was the official transfer date, Houston's Manager of Aviation Operations, Dave Cox, said there will be no big rush into full-scale operations.

The City has engaged a consultant to prepare a master plan, he said, "for the best utilization of available space for ramps, taxiways, aprons and hangars." The plan is expected to be completed within a year. Cox described Ellington's new role as "a joint-use airport: a reliever airport for both Hobby and Intercontinental. We are aiming for the best possible mix of commuter, charter, general aviation and cargo operations."

Cox said it was too early to forecast what levels air traffic around Ellington will rise to.

What the shift means for NASA Aircraft Operations is not completely clear yet. What is certain is that for the first time at Ellington, there will be a daily mix of flights by light general aviation planes and high performance jets such as NASA T-38s and F-4 Phantoms of the 147th Fighter Interceptor Group of the Texas Air National Guard. Because of the widely divergent landing and takeoff speeds, this will make air traffic control (ATC), at Ellington considerably more complicated.

The service contract for ATC is presently with Mercury Consolidated and managed by the Air

National Guard. Management of the contract will be turned over to the City of Houston, and negotiations are underway between the City and Mercury. It is also possible that an increased ATC load will mean the Federal Aviation Administration could assume control of the Ellington tower.

NASA and other present users of Ellington have begun to adapt to the changes. And change — from feast to famine and back again — has been the only constant at Ellington since its construction in 1917.

The Field was named in honor of 2d Lt. Eric Lamar Ellington (1889-1913), who was killed at the Signal Corps Aviation School in San Diego in November 1913 when his Wright C-Model suddenly nosed down and crashed as he made a landing approach. A somewhat flowery history of Ellington Field, written in 1918, recounted the accident: "An airplane glistened in the opalescent rays of a sinking sun. Its wings gleamed — sinister in its suggestion of menace, yet resplendent as an iridescent silhouette against a canopy of clear turquoise. Awed by the beauty of the scene, as the ship droned its flight across the sky, the spectators stood fascinated. Suddenly the plane started to writhe, like a winged bird, and then whirled its way earthward. As the sun sank into the western horizon, as if in silent tribute to the tragedy, the lifeless form of a boy was lifted from the wreckage of the ship. He was Lieutenant Ellington. Ellington was among the first army officers to brave the uncertain elements of the air. His fate was

inevitable, according to cynics, but for his devotion an enduring monument has been erected to his memory."

Flying activity began at Ellington almost exactly one year before World War I ended, and a dynamic but short-lived era began. More than 5,000 troops had moved into the hastily constructed Army camp in September 1917. Army Air Corps aviators learned to fly in Curtiss JN-4s, the famous "Flying Jennies," and they learned bombing in de Havilland 4-Bs with "the mighty Liberty 400 engines."

Accounts in the 1918 yearbook reflect the pride with which Ellington became "the first field in the South to receive the de Havilland planes." But the American-made DH 4-Bs, originally built and used by the British during the Great War, reached U.S. troops too late to be used in combat. No record exists, of course, of whether anyone who missed flying a DH 4-B in combat took comfort when the plane became known as the "Flying Coffin."

When the war ended, Ellington joined in the celebration. On November 11, the base said goodbye to one commander and welcomed another. "Two miles of airplanes stretched across Ellington Field on Monday," the base newspaper, *Tale Spins*, said. "It was one of the most brilliant spectacles ever presented at an aviation field and with the military parade made up a picture that can never again be duplicated." The yearbook described it this way: "The airdrome was a sea of ships."

The November 15, 1918 edition

of *Tale Spins* carried the story of the war's end: "Every officer and enlisted man on the post who could get away, it seemed, tried to crowd into the many jitneys and 6 o'clock and 7 o'clock Interurban cars. Trucks were loaded to the limit and still could not accommodate the crowds going to Aviation Station, and many had to walk that far. The peace celebration in town was the main attraction."

Ellington went on record in those years with many firsts. It was the first field to begin night operations with the use of the calcium light. It also boasted the country's first bombardier training school, consisting of "both theoretical and practical bombing work." The bombing practice and aerial gunnery range was established in May 1918 at San Leon on a piece of land jutting out into Galveston Bay. Lew Fisher, a retired JSC employee and owner of the Aviator Shop in Webster, said he has flown over the location of the former bombing range there, and that indentions probably caused by those bombing runs can still be seen from the air.

Long cross-country flights were the rage during that era, and Ellington was no exception. The June 20, 1919 edition of *Tale Spins*, the base newspaper, carried the headline: "Two Handley-Page Complete Flight from Elizabeth, New Jersey to Ellington Field — Lack of Proper Landing Fields Hinder Flight, but an Average Air Speed of Over Eighty Miles per hour is Maintained."

The glory years for Ellington ended at the very outset of the

(Continued on page 4)

Changes in store for NASA Ops at Ellington

The changes at Ellington coincide with plans JSC is making for upgrading its own facilities after 22 years of operations.

"We have been in a period of uncertainty and so not investing much money at Ellington," said Center Operations Director Kenneth Gilbreath. "But now we know we will be upgrading all those facilities over the next two to three years. That involves our structures as well as electrical and mechanical systems such

as air conditioning, and replacing runway parking apron concrete. We also plan on building a new parking area near Hangar 990 within the next two years.

JSC buildings at Ellington include three hangars and six storage warehouses, as well as welding, tire and paint shops on 35 acres of land owned by NASA.

The one visible change since Houston acquired ownership of Ellington is a new security perimeter around the NASA area, since

guards are no longer stationed at the two main entrance gates.

JSC's aircraft inventory, the largest of all NASA centers, includes 25 Northrup T-38 jet trainers; the Boeing KC-135 used for zero-g training; two modified Grumman Gulfstreams used as JSC Shuttle Training Aircraft; NASA 2, the executive Grumman Gulfstream; the highly modified Supper Guppy (built from the parts of a Boeing C-97J and a Boeing 377); and the WB-57 high altitude

weather plane, the only one of its kind in use today. One other JSC aircraft, the Boeing 747 Shuttle Carrier Aircraft, is usually quartered at Edwards Air Force Base.

The attitude at JSC Aircraft Operations is one of acceptance and cooperation. "We have to adapt to the change," said JSC Aircraft Safety Officer Roger Zweig. "If we get in on the planning early, we can help people understand the potential conflicts. For example, we can suggest that all slow

airplanes use the same runway and the fast planes use a different one. We can make a smooth transition."

Zweig said the addition of general aviation and commercial cargo and commuter flights to Ellington will mean four or five times as many flights per day. He likened the present Air Traffic Control situation to traffic on the Gulf Freeway at midnight. "The new flights will make it more like driving your car into Houston during rush hour."

Ellington

(Continued from page 3)

Roaring Twenties. In 1920, the War Department decided the base was no longer needed and ordered it closed. Final wrecking operations began in 1925, and fire destroyed all that was left of the wooden buildings in 1927. After the fire, National Guard units moved to Houston Municipal Airport, now Hobby Airport. By 1930, only the concrete water tank and some concrete slabs on which small hangars had stood remained. For the next decade, the land was leased to ranchers.

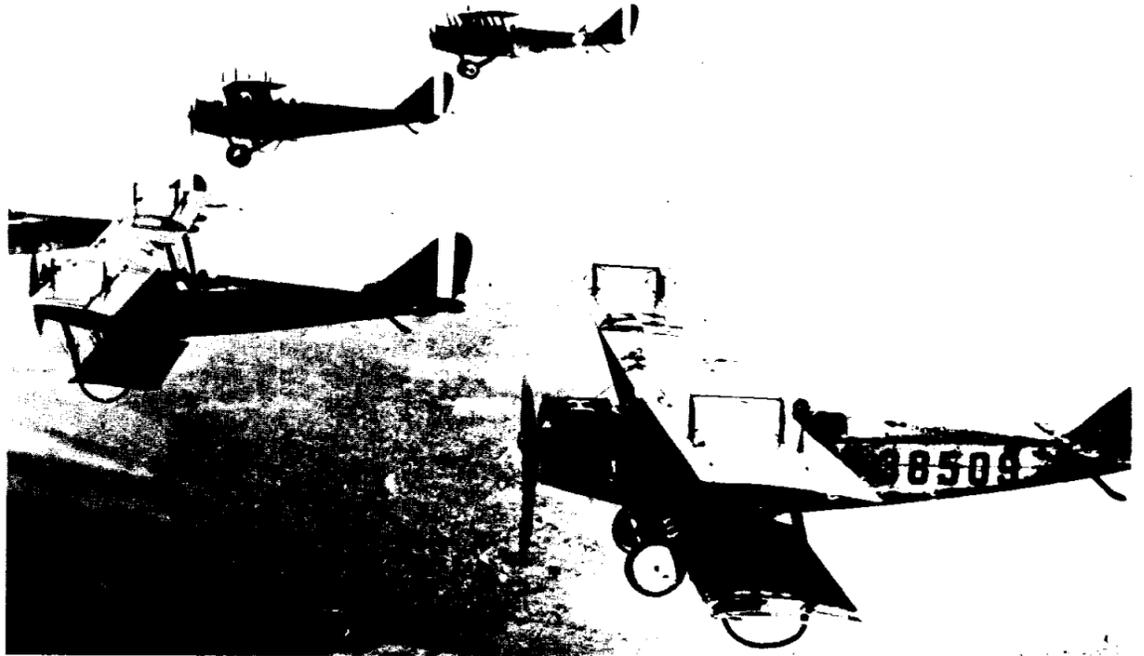
In 1925, two Army Air Service Douglas World Cruisers and crews which had flown around the world in the span of five months and 22 days visited Ellington Field. Turn-out of the local populace to greet the flyers was low, however, because an outbreak of hoof and mouth disease among cattle grazing at Ellington had put the field under quarantine.

The next great war, however, brought a revival of the old air base. In 1940, Congress authorized a construction program of over \$7 million to rebuild Ellington. On November 23, 1940, Ellington was officially designated as an Air Corps Station. Two hangars were built and a new runway constructed.

Almost every type of aircraft in the inventory flew out of Ellington during the war years.

In 1946, the base was again placed on inactive status by the Air Defense Command and later that year was placed under the jurisdiction of the 10th Air Force. When the Army Air Corps was officially separated from the U.S. Army on September 18, 1947, Ellington Field became Ellington Air Force Base and was transferred to Air Training Command. In April 1958, the base was transferred back to the supervision of the 10th Air Force, under the Continental Air Command. Around 1960, full blown Air Force activity was phased out, and the Texas Air National Guard was the most active tenant. In February 1963, the base was reactivated for Air Force operations. From then until 1976, it was an active base with the mission of providing services to the Air Force Reserve Program and the Central Air Force Reserve Region. This included logistical and administrative support for the 924th Tactical Airlift group and the 147th Fighter Interceptor Group of the Texas Air National Guard. Ellington's last round of being deactivated came in 1976.

—Betty Johnson



A group of Curtiss JN-4s from Ellington Field fly in formation on a bombing run near San Leon around 1920.

Roundup Swap Shop

Ads must be under 20 words total per person, double spaced, and typed or printed. Deadline for submitting or cancelling ads is 5 p.m. the first Wednesday after publication. Send ads to AP 3 Roundup, or deliver them to the Newsroom, Building 2 annex. No phone-in ads will be taken. Swap Shop is open to JSC federal and on-site contractor employees for non-commercial personal ads.

Property & Rentals

For lease: Nassau Bay 3-2-2, large kitchen, living and dining rooms, den, porch, 1 year lease, \$800/mo. plus deposit. Call 480-2578 after 5 p.m.

For sale: Friendswood 5-3.5-2.5, formals, paneled family room and study, large kitchen, screened patio, .9 acres in secluded setting. Call 482-6638.

For sale or lease: Waterfront townhome in League City, 2-2, with loft, garage and parking spot, \$89,000 or \$800/mo. Call Don, x4451 or 480-2597 after 6 p.m.

For rent: Friendswood 2-2-2 condo, FPL, W/D, DW and drapes furnished. Call Nancy, (409) 849-3023.

For lease: Heritage Park 3-2-2, fenced, FPL, formal dining, auto garage door opener, over 1,600 sq. ft., near Baybrook Mall, CCISD, \$550/mo. plus deposit. Call 486-6543.

For lease: Wedgewood 3-2-2, FPL, large living room, formal dining, new exterior paint, quiet cul-de-sac neighborhood, CCISD, near Baybrook Mall, \$550/mo. plus deposit. Call 486-6543.

For sale: Walden on Lake Conroe timeshare condo, sleeps 4, RCI exchange privileges, tennis, golf and boating. Call Don, 280-4257 before 4 p.m.

For sale: Brazoria County 3/4 acre waterfront lot with access to excellent bass fishing. Call Don, 280-4257 before 4 p.m.

NARFE MEETING IS August 7

The next regular meeting of the NASA Area Chapter of the National Association of Retired Federal employees will be held August 7. For more information, call Burney Goodwin at 334-2494.

Cookin' in the Cafeteria

Week of August 6-10, 1984

Monday: Chicken & Rice Soup; Weiners and Sauerkraut, BBQ Ham Steak, Steak Parmesan, Beef & Macaroni (Special); Green Beans, Carrots, Au Gratin Potatoes. Standard Daily Items: Roast Beef, Baked Ham, Fried Chicken, Fried Fish, Chopped Sirloin. Selection of Salads, Sandwiches and Pies.

Tuesday: Tomato Soup; Potato Baked Chicken, BBQ Spare Ribs, Mexican Dinner (Special); Squash, Broccoli, Ranch Beans, Spanish Rice.

Wednesday: Seafood Gumbo; Liver & Onions, Baked Turbot, BBQ Ham Steak, Baked Meatloaf w/Creole Sauce (Special); Beets, Brussels Sprouts, Green Beans.

Thursday: Beef & Barley Soup; Chicken & Dumplings, Corned Beef w/Cabbage, Smothered Steak w/Cornbread Dressing (Special); Spinach, Cabbage Cauliflower au Gratin, Parsley Potatoes.

Friday: Seafood Gumbo; Pork Chop w/Yam Rosette, Creole Baked Cod, Tuna & Salmon Croquette (Special); Brussels Sprouts, Green Beans, Buttered Corn, Whipped Potatoes.

Week of August 13-17, 1984

Monday: Cream of Celery Soup; Braised Beef Ribs, Chicken a la King, Enchiladas w/Chili, Italian Cutlet (Special); Navy Beans, Brussels Sprouts, Whipped Potatoes. Standard Daily Items: Roast Beef, Baked Ham, Fried Chicken, Fried Fish, Chopped Sirloin. Selection of Salads, Sandwiches and Pies.

Tuesday: Beef & Barley Soup; Turkey & Dressing, Country Style Steak, Beef Ravioli, Stuffed Cabbage (Special); Corn Cobbette, Okra & Tomatoes, French Beans.

Wednesday: Seafood Gumbo; Catfish w/Hush Puppies, Roast Pork w/Dressing, Chinese Pepper Steak (Special); Broccoli, Macaroni & Cheese, Stewed Tomatoes.

Thursday: Cream of Tomato Soup; Beef Tacos, BBQ Ham Slice, Hungarian Goulash, Chicken Fried Steak (Special); Spinach, Pinto Beans, Beets.

Friday: Seafood Gumbo; Liver & Onions, Deviled Crabs, Roast Beef w/Dressing, Tuna & Noodle Casserole (Special); Whipped Potatoes, Peas, Cauliflower.

\$575/mo. Call Tim, x2276 or 280-5226.

For rent: Galveston-by-the-Sea condo, 2 BR, furnished, for rent by day (2 min.) week or month. Call Clements Jr., 474-2622.

For rent: Galveston Gulf front condo. Treat yourself to a relaxing 2-day to 1-month vacation, completely furnished condo. Low rates. Call Nussman, 488-7762.

For lease: Meadowbend 3-3-3, immaculate, fenced, fans, garage opener, refrig., \$500/mo. plus deposit. Call 280-8644 days.

Cars & Trucks

1973 BMW 2002, AC, AM/FM/cassette, new trans., paint, wheels, Weber carb., \$4,700/OBO. Call Tim, 333-3871.

1979 Mercury Capri turbo, 4 spd., good tires, PS, PB, good condition. Call Rick, x5266 or 480-5911.

1976 Granada Ghia, 351 V-8, AC, 4 dr., loaded, low miles, excellent condition. Call 334-3187 after 5 p.m.

1982 Cutlass Supreme, white/burgundy vinyl top & inter., AC, AM/FM/cassette, 25K miles, good mileage, excellent condition, \$6,500/OBO. Call Denise Green, x4488 or 434-9469 after 6 p.m.

1976 Olds Delta 88, AC, PS, PB, AM/FM, cruise, tilt, good condition, \$1,250. Call 337-3683 evenings.

1979 Ford Mustang Ghia, fully loaded, 4 spd., V-8, runs great, looks good in and out, moving, need to sell ASAP, \$3,800/neg. Call Kimbra, x5801 or 870-8294.

1981 Honda Prelude, silver w/burgundy interior, 4 spkr. AM/FM/cassette, 5 spd., power moon roof, excellent condition, \$6,500. Call Bee Jay, x3278 or 486-8156 after 5 p.m.

1980 Celica liftback, auto, AC, new brakes, excellent condition, \$4,000/neg. Call Jeff, x3404 or 488-8502 after 4 p.m.

1975 Pontiac Catalina, not very aesthetic anti-rust body, but superb running work car, \$550/OBO. Call Cliff, x4457 or 486-8810.

1978 Ford van, customized, rolled, selling all or part, good new upholstery, other goodies. Call Zack, x6247 or 925-3945.

1984 Ford Custom van, by Anaheim, tan & brown, fully loaded, TV, low miles. Call 488-2476.

1976 VW Bug, gold with black interior, excellent condition. Call 486-9791 after 6 p.m.

1971 Chevette, 2 dr., AM/FM/cassette, AC. Call 944-8180.

1972 Pontiac Safari wagon, clean, asking \$690. Call Briggs, x5165 or 333-2717.

1976 280Z, blue with rally stripes, mag wheels, AC, AM/FM, auto, Call Schneider, x4086 or 481-1469.

Boats & Planes

1972 McGee Craft fiberglass 14' boat, VGC, \$325. Call Dick, x5523.

1978 Cheetah, 19', low profile ski boat, 150 HP Mercury, power tilt w/trailer, \$4,500. Call Rick, x5266 or 480-5911.

1979 Pennyan, 24', flying bridge, 350 HP Chrysler, low hours, sleeps four, many extras, \$7,995. Call 554-6733.

Skeeter bass boat with 50 HP Johnson, trolling motor, depth sounder, etc., \$2,100. Call Don, 280-4257 before 4 p.m.

Minn Kota trolling motor, hand control, 28-pd. thrust, \$125; Hummingbird Super Sixty depth sounder, \$115. Call Don, 280-4257 before 4 p.m.

Envinrude trolling motor, small 3 HP. Call John, x4393 or 488-0559.

Household

Maytag dryer, \$100; spindle twin headboard, painted green, \$20. Call Bob, 482-5984 after 5:30 p.m.

King size Stearns & Foster deluxe, posture built mattress and box springs, extra firm, mahogany headboard. Call 723-1640.

Orthopedic mattress and box springs. Call 534-6252 after 5 p.m.

Used chrome kitchen furniture, four chairs, 30" x 40" formica top table with 10" leaf, \$25. Call Dornbach, 334-3459.

Couch, \$25; apartment-sized washer/dryer, \$150. Call Jenny, 333-1714.

Ethan Allen solid pine day bed/sofa, blue velvet, \$400. Call John, x4393 or 488-0559.

Smoked glass-top table, \$75; set of four upholstered chairs, \$100 for set; large couch w/ottoman, used but in good condition, \$125. Call David Pruett, x2197 or 333-5130 evenings.

Wrought iron dinette, glass top table, 34" x 60" with 6 chairs, \$175. Call 482-7643.

Frigidaire 14 cu. ft. refrigerator, just reconditioned, yellow, \$275/OBO. Call Ron, x5231.

Electric range, combined lower oven and eye level oven, \$195. Call 480-2367.

Pets & Livestock

Free smoky gray & black kitten to good home, frisky, good litter experience so will be well-balanced adult cat. Call Brian, x5111 or 480-5194.

Beautiful male golden retriever, very gentle, good with kids, free to good home. Call Steve, 482-2527.

AKC German shorthair pointers, puppies and starter dogs. Call 486-1573. Arabian filly, "Aziza bintPharoah," Limazar granddaughter, 6 mos. old, in weaning, chestnut, AHR-registered. Call Kathleen White, 332-5177.

Miscellaneous

Jenny Lind cradle w/accessories, \$65; Childcraft crib, \$130; Hedstrom wooden playpen, \$60; COSCO high chair, \$25. Call 488-3819 after 6 p.m.

AC compressor, 3-ton, new, never installed, \$350/OBO. Call Tim, 486-8153, x193 or 947-8448 after 6 p.m.

Mobile home near Alvin, 2-2, central A/H, all gas, patio cover and carport attached, \$11,950. Call 482-7138.

Aluminum cover for Toyota pickup, \$195. Call 480-2367.

1969 Harley XLH sportster, needs repair, asking \$1,000. Call 482-0789.

Explorer Post 2001, backpacking, boating, rock climbing, open to high school boys and girls, meets Wednesdays at 7 p.m. at McDonnell Douglas Bldg. A. For info, call Jim Hasse, 481-1906 or Linda Marak, 488-0143.

Trans Am wheels with Firestone 721's, mounted and balanced with locks and lugnuts, \$350. Call Ron, x5077 or 332-6003.

Honey, new crop, \$4 per quart, \$12 for 3 quarts. Call Byrns, x6247 or (409) 925-3945.

Parasail, never been used, complete assembly with carrying case. Call K. Elton, x4384 or 332-5709.

Four new Uniroyal Steeler tires, P235/75R15, \$250. Call Rogers, x3576.

Thomas transistor organ w/Leslie & stereo, good condition, needs work on B-flats, \$400/OBO. Call Ron, x5231.

Used golf balls, excellent condition, 35¢ ea. or 3/\$1. Call Tony, x3987.

Wanted

Seeking tennis ball machine in good condition. Call Tom, x6247.

Want responsible person to share 4 BR house in League City, \$175 plus half utilities. Call Ron, x5077 or 332-6003.

Responsible roommate needed to share 3 BR house in Countryside, M/F non-smoker preferred, \$240/mo. plus third utilities. Call or leave message, 554-7706.

Want to buy tube-type stereo equipment. Call Jeff, x6154 or 480-2439 after 5 p.m.

What's a MURP?

In the course of preparing a history of the Space Shuttle Orbital Flight Test Program, Rice University Historians Joe Guilmartin and John Mauer have come across an acronym which so far defies decoding. The acronym is MURP, and apparently it refers to a reusable spacecraft design considered by the Shuttle task force in the late 1960s.

"We have looked high and low for evidence of what MURP stands for," Guilmartin said, "but so far we haven't found it." The historians ask anyone with knowledge or documentation of the acronym to please contact them at x2838.